

From johnmb at nc.rr.com Fri Jun 2 07:03:11 2017
From: johnmb at nc.rr.com (john)
Date: Fri, 2 Jun 2017 07:03:11 -0400
Subject: [BoatAnchors] Disintegrating microphone and phono cartridges
In-Reply-To: <11e5d785-7982-1b82-721b-9975d0cb2dee@ix.netcom.com>
References: <CABYRTqd+bTASbipzetrA37mitNkDMbE0k=HaEc8ZMeVdVGZMuQ@mail.gmail.com>
<11e5d785-7982-1b82-721b-9975d0cb2dee@ix.netcom.com>
Message-ID: <74c45f2b-3695-47a5-8929-8a52298f7ef1@nc.rr.com>

Here's a recipe that doesn't look so daunting.

[http://rimstar.org/materials/piezo/
how_to_make_rochelle_salt_piezoelectric_crystal.htm](http://rimstar.org/materials/piezo/how_to_make_rochelle_salt_piezoelectric_crystal.htm)

The key ingredient involves a raid on your local supermarkets "cream of tartar" powder.

Looking thru this article, the yield of crystals looks pretty high (and the resulting crystals look larger than those I remember seeing in a D ten four.

It's been a decade or so since I looked at the Astatic element. IIRC the crystal is at the center of a foil diaphragm with some very fine wires affixed somehow. There's probably a lot of tribal knowledge in the process, but at least the folks at Kobitone were able to reproduce it.

Speaking of them, there's still some re-sellers of what looks to be a replacement for the venerable Kobitone on Ebay (of course). They're not \$1.20 each like the K were thry Newark, or whoever it was that carried them.

XPH John K5MO

On 5/31/2017 10:54 AM, Richard Knoppow via BoatAnchors wrote:

> There were many patented methods of sealing the crystals. I think
> Astatic's seem to have been better than most but none last forever. The
> element is dissolves if any moisture gets in. Rochelle salt is also
> sensitive to heat and physical shock. The latter was an especial problem
> with phonograph pickups because dropping the pickup on a record or
> scraping it across the grooves might be enough to damage it. Crystals
> were also used as record cutters and here overdriving one could fracture
> the crystal and destroy it. Why were they in such wide use? Simple, the
> were cheap, had good fidelity and as microphones and pickups had very
> high output which saved the cost of a stage of electronic amplification.
> The output level of a phono pickup was compatible with the output of the
> detector in an AM radio so one could attach a phonograph with a plug and

> switch. Many radios of the 1930s though the 1950s had phono jacks and
> switches on them. Even the Super-Pro receivers had terminals for a
> crystal pickup on them.
> I think it is remarkable that so many D-104s have survived.
>
> On 5/31/2017 4:44 AM, packradt packradt via BoatAnchors wrote:
>> The bad D-104 cartridge is another example of time taking its toll.
>> "Rochelle Salt" is the magic phrase for what you are researching. I
>> looked
>> into it a while back, and yes, there are bits and pieces on the antique
>> radio forums and in scans of old books on Google Docs that touch on this.
>> I remember the image of 1940s era girls in bathing suits tending
>> solutions
>> down in a cave--not as a glam shot, but owing to the continued high temp
>> needed for the process. I never really got the best method of cutting or
>> sizing a crystal for a specific purpose, and I expect sealing up a fresh
>> crystal against moisture and without water or any contaminants inside is
>> fiddly. But the list of chemicals needed was not that daunting.
>>
>> --Nathan
>> -----
>> BoatAnchors mailing list
>> BoatAnchors at theporch.com
>> <https://theporch.com/mailman/listinfo/boatanchors>
>>
>

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III

From packradt at gmail.com Wed Jun 7 00:06:48 2017
From: packradt at gmail.com (packradt packradt)
Date: Tue, 6 Jun 2017 23:06:48 -0500
Subject: [BoatAnchors] Disintegrating Mic and Phono Cartridges and Rochelle
Salt replacements
Message-ID: <CABYRTqezGwXavkcLnLAW3ZoH6e0YLQuodJ=KHP8dtc004GevMGw@mail.gmail.com>

For info on Rochelle Salt history, uses, etc...

http://www.extremenxt.com/blog/?page_id=77

This evening, I was looking through a recently acquired March 1948 copy of Radio News (? -- because, as you know, there's nothing good on TV, that's why). On page 166 they have a picture of what could look like ice cubes frozen onto a multilayer eight-petaled wire carousel centered inside a metal lard can. Instead, the accompanying text describes it is a photograph from the Allentown Shops of Western Electric, and that forming

these crystals of "synthetic ethylene diamine tartrate" took three months of patient agitation and slow growth around seed crystals, and they are destined to be used as filters in long distance telephone circuits.

Which got me to thinking about my past dilettante chemistry experiments and the importance of purity, temperature, and temperature control over time (learning a great deal each time through my failings in these areas to be precise, and attempting to cut corners in time and preparation) to doing practically *anything* significant in that quarter.

So I googled that chemical term in quotes, and got some returns, and started reading patents that had "rochelle salt" in the body of the text, and taking notes, and then fell backwards into this page of a page titled Forsaken Technology --the link at the top.

This page gathered up lot of the factoids that I would have been looking for.

Instead of buying the ingredients ounce by painful ounce at the grocery store and worrying about the purity of the chemicals, you are pointed to several pages which will sell pure Rochelle Salt and other bulk chemicals. Unbeknownst to me, Rochelle Salt is used in some very esoteric photographic work, so it is available in bulk at seemingly reasonable prices.

The page also addresses my areas of concern: the subjects of temperature, purity, and agitation times and methods. Looking at this, it seems even *more* achievable to do a professional job, especially if you're willing to go the sous-vide route with your crystal creation.

<http://www.extremenxt.com/blog/?p=63> is an affiliated page which includes some of the photographs I remember stumbling across, including young ladies working in a low-ceilinged shed in cutoffs tending rocking pans full of crystals being irrigated with saturated solution. I still think I saw a similar picture of ladies working in a cave. Looking through Radio News and Popular Science type magazines of this era, it's clear that many companies were into the piezoelectric manufacturing biz. As soon as one article appeared, a blurb from another company would show up in a successive issue on the same subject.

Hope this might prove as interesting and informative to some of you as it was to me.

Cheers, Nathan

From 1oldlens1 at ix.netcom.com Wed Jun 7 00:51:04 2017
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)

Date: Tue, 6 Jun 2017 21:51:04 -0700

Subject: [BoatAnchors] Disintegrating Mic and Phono Cartridges and
Rochelle Salt replacements

In-Reply-To: <CABYRTqezGwXavkcLnLAW3ZoH6e0YLQuodJ=KHP8dtc004GevMGw@mail.gmail.com>

References: <CABYRTqezGwXavkcLnLAW3ZoH6e0YLQuodJ=KHP8dtc004GevMGw@mail.gmail.com>

Message-ID: <62fb493e-e077-9518-761a-2bdd325038ef@ix.netcom.com>

FWIW, a lot of magazines like "Radio News" are available at
American Radio History

<http://americanradiohistory.com/>

Radio News is at

http://americanradiohistory.com/Radio_News_Master_Page_Guide.htm

One of the great problems during WW-2 was obtaining suitable quartz crystals for frequency control until someone figured out that defective crystals could be ground up, dissolved, and grown into new crystals of superior quality. Rochell salt can also be used for frequency control and filters but was never very popular, perhaps because it is too vulnerable.

On 6/6/2017 9:06 PM, packradt packradt via BoatAnchors wrote:

> For info on Rochelle Salt history, uses, etc...

>

> http://www.extremenxt.com/blog/?page_id=77

--

Richard Knoppow

1oldlens1 at ix.netcom.com

WB6KBL

From wb3fau55 at neo.rr.com Wed Jun 7 11:07:50 2017

From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)

Date: Wed, 7 Jun 2017 11:07:50 -0400

Subject: [BoatAnchors] rochelle salt- Astatic-Shure- D104s - Conneaut OH.

Message-ID: <20170607150750.CQD75.95518.root@cdptpa-web02>

You know, I think it is just bad luck that someones xtal element goes bad. Surely Astatic did a good bit of research on these problems. I have a D104 that I got used, I do not remember when? At least 20 years ago. I know I have drop-kicked it at least 6 times. It still works great.

Astatic was in Conneaut, OH, about 30 miles from this QTH. Erie, Pa. They used to put on a big display at the Conneaut Hamfest, years back. I think Shure bought out Astatic. Astatic also made xtal phono cartridges.

You know there is plenty of this stuff still out there at hamfests for fair prices. You just got to go look. I still use a D104. The midrange presense is hard to beat. And a lot cheaper than the newer audio processing that's available. Poor radio conditions make a good D104 the way to go. Russ.

From w4rl at bellsouth.net Wed Jun 7 17:04:25 2017
From: w4rl at bellsouth.net (Robert)
Date: Wed, 7 Jun 2017 16:04:25 -0500
Subject: [BoatAnchors] rochelle salt- Astatic-Shure- D104s - Conneaut OH.
In-Reply-To: <20170607150750.CQD75.95518.root@cdptpa-web02>
References: <20170607150750.CQD75.95518.root@cdptpa-web02>
Message-ID: <59386A59.4050508@bellsouth.net>

Probably the most recognized microphone made in the ham radio community. I've often wondered who artistically and electrically designed it at the original Astatic Corp. I've several of them all working in various mic element forms.

About 15-20 one of the popular parts houses had replacement ie, crystal diaphragmatic types about 3/4's of the original element diameter. I think it was Mouser.

73 Robert W4RL Pensacola

On 6/7/2017 10:07 AM, Russ Dworakowski WB3FAU via BoatAnchors wrote:
> You know, I think it is just bad luck that someones xtal element goes bad. Surely Astatic did a good bit of research on these problems. I have a D104 that I got used, I do not remember when? At least 20 years ago. I know I have drop-kicked it at least 6 times. It still works great.
> Astatic was in Conneaut, OH, about 30 miles from this QTH. Erie, Pa. They used to put on a big display at the Conneaut Hamfest, years back. I think Shure bought out Astatic. Astatic also made xtal phono cartridges.
> You know there is plenty of this stuff still out there at hamfests for fair prices. You just got to go look. I still use a D104. The midrange presense is hard to beat. And a lot cheaper than the newer audio processing that's available. Poor radio conditions make a good D104 the way to go. Russ.
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://theporch.com/mailman/listinfo/boatanchors>
>

From 1oldlens1 at ix.netcom.com Wed Jun 7 18:27:54 2017
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Wed, 7 Jun 2017 15:27:54 -0700
Subject: [BoatAnchors] rochelle salt- Astatic-Shure- D104s - Conneaut OH.
In-Reply-To: <59386A59.4050508@bellsouth.net>
References: <20170607150750.CQD75.95518.root@cdptpa-web02>
<59386A59.4050508@bellsouth.net>

Message-ID: <1fd57842-7695-620f-8b4f-bbdb56fa02d4@ix.netcom.com>

FWIW, the D-104 was the first commercially available crystal mic on the market. I think they date from 1933 but it might be 1935. Astatic was then in Youngstown OH, they seem to have been the first to develop the patents from Brush Development Co. who held the Nicholson patents.

The first of the D-104s was sold in a ring type spring mount with four eyelets on the mic body. This was a common type of mounting for carbon microphones. At first either they were sold with flat frequency response or with a choice of flat or tailored. Part of the HF rise is from the shape and size of the case and part, the steep 3Khz peak from a mechanical resonance introduced in the mechanism. The D-104 uses a shallow conical aluminum diaphragm coupled to the crystal with a rod at the center. This is also a common arrangement for crystal microphones and headphones. By choosing the right constants for the diaphragm and coupling almost any sort of frequency response can be chosen by the designer. The D-104 was sold for ham radio, paging and PA use while Astatic sold flat response mics for home recording (for instance the D-3). I don't know when the familiar Astatic grip to talk desk stand was first made but it seems to be a very good design and was very popular. It was made so that several Astatic models could be used with it.

Every maker of crystal elements had some method for sealing them against moisture. Astatic's "Metalseal" seems to have been one of the more effective ones since many of their products have survived for decades. However, storing any crystal element device where the humidity is high will eventually break down the seal. Crystal elements are also sensitive to high temperature, I think Astatic gives 114F as the maximum ambient for their mics. The elements are also vulnerable to fracturing from being dropped or, in the case of headphones or record cutters, from being over driven. The makers of crystal phono pickups went to considerable trouble to protect them from the effects of being dropped on a record or scraped across the grooves. Most home phonographs and jukeboxes had crystal pickups. Moving coil and various magnetic types were found in broadcasting stations but they were very heavy, expensive, and had much lower output than crystals. Also, a well designed crystal pickup generally had better fidelity and applied lower force to the record.

Crystal pickups began to disappear when ceramic ones became available and when the demand for considerably higher fidelity started with the release of the Lp record (1948). Manufacturers began to develop new types of pickups with better quality, however there were hi-fi crystal pickups made, even for stereo. Another FWIW, Astatic, Shure and EV all had found ways to make cardioid microphones using crystal elements. None of these seems to have been as popular as the non-directional kind, perhaps due to higher cost.

On 6/7/2017 2:04 PM, Robert via BoatAnchors wrote:

> Probably the most recognized microphone made in the ham radio
> community. I've often wondered who artistically and electrically

> designed it at the original Astatic Corp. I've several of them all
> working in various mic element forms.
>
> About 15-20 one of the popular parts houses had replacement ie, crystal
> diaphragmatic types about 3/4's of the original element diameter. I
> think it was Mouser.
>
> 73 Robert W4RL Pensacola

--

Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From 1oldlens1 at ix.netcom.com Thu Jun 8 21:43:41 2017
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Thu, 8 Jun 2017 18:43:41 -0700
Subject: [BoatAnchors] rochelle salt- Astatic-Shure- D104s - Conneaut OH.
In-Reply-To: <1fd57842-7695-620f-8b4f-bbdb56fa02d4@ix.netcom.com>
References: <20170607150750.CQD75.95518.root@cdptpa-web02>
<59386A59.4050508@bellsouth.net>
<1fd57842-7695-620f-8b4f-bbdb56fa02d4@ix.netcom.com>
Message-ID: <48ca6046-4d25-ad97-19e1-7e725504a7d6@ix.netcom.com>

I must make some corrections here. Brush may have been licensed under the Nicholson patents but more likely those of C.B.Sawyer. Nicholson is an interesting case, he did obtain some very early patents for quartz crystal oscillators but they were due to legal blunders and the credit belonged to W.G.Cady. Those interested in this history can find a good exposition in:

"Electroacoustics" Fredrick V. Hunt (1954) The Harvard University Press beginning at about p.47 Hunt details the early development of piezoelectric crystals, both quartz and Rochelle salt types. While the book is quite technical the historical section is accessible to those without specialist education in math or physics. Hunt is a very lucid writer, easy to read. I believe the book was reprinted by the American Institute of Physics but an Amazon search should find out.

It is an old friend but I had misplaced my copy (more than one I think) probably in storage somewhere and just obtained another. Hunt devised a very important method of resolving the difference in "symmetry" between the electrical analogs of mechanical and acoustical circuits allowing complete analogs of transducers to be made for analysis. While there were earlier attempts at deriving the analogs (Harry Olson of RCA wrote a book on them), no one had resolved the difficulties prior to Hunt.

This is a bit OT here but the recent discussion of crystal microphone and, perhaps, some interest in the development of crystals

for frequency stabilization and filtering, will justify it.

On 6/7/2017 3:27 PM, Richard Knoppow via BoatAnchors wrote:

> FWIW, the D-104 was the first commercially available crystal mic on
> the market. I think they date from 1933 but it might be 1935. Astatic

--

Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From jerry7proc at yahoo.com Thu Jun 15 20:44:16 2017
From: jerry7proc at yahoo.com (Jerry Proc)
Date: Fri, 16 Jun 2017 00:44:16 +0000 (UTC)
Subject: [BoatAnchors] Early Television History
References: <1189422233.13708667.1497573856869.ref@mail.yahoo.com>
Message-ID: <1189422233.13708667.1497573856869@mail.yahoo.com>

Hello Early Television Fans,

Recently I decided to add vacuum tube televisions to my Canadian Marconi web page. This caused me to wonder how television evolved especially in Canada and when did television manufacturing begin for the masses? During the research, I discovered that Canadian television would have never developed had it not been for so many technological developments in the US. The story is therefore titled ?A SHORT HISTORY OF CANADIAN TELEVISION? and is found in the lower portion of document: http://jproc.ca/marconi/home_ent/index.html

The toughest part during the research was to keep the article as short as possible; since there is a ton of material available on this topic but not so much for Canada.

Enjoy!

--

Regards,
Jerry Proc
E-mail: jerry7proc at yahoo.com

From rlloken at telus.net Fri Jun 16 01:17:34 2017
From: rlloken at telus.net (Richard Loken)
Date: Thu, 15 Jun 2017 23:17:34 -0600 (MDT)
Subject: [BoatAnchors] Early Television History
In-Reply-To: LfNEdTH8FVo4PLfNFdwn3P
References: <1189422233.13708667.1497573856869.ref@mail.yahoo.com>

LfNEdTH8FVo4PLfNFdwn3P

Message-ID: <alpine.BSF.2.20.1706152301490.304@discord.bogons>

Jerry, interesting collection of television data, I cannot pretend to have read it all - that will take a bit of time.

I worked as a broadcast technician from 1973 to 1979 at CJOC TV, CKY TV, and last at CHAB Radio. The good thing about CJOC and CHAB was that they were small town station who didn't have the money to replace equipment so I got to work with a lot of vacuum tube gear and other largely forgotten stuff like Marconi Mark IV image orthicon cameras that we got from the much more up to date CHCH television in Hamilton.

At CHAB we had a modern and rather compact 10KW Continental transmitter but, more to my liking was a 1940s vintage Marconi Transmitter assembled on a concrete base with a wooden fence around the back to remind you not to fondle the components while it was running. The Marconi still worked and was for standby service when the Continental fried something which it did about once a year.

Meanwhile, what do you know about Stark? I inherited a Japanese made VOM badged Stark and made to look a lot like a Simpson 260 but I cannot find any information on it. I also have a 12-22 tube tester and again information is lacking but, as you know, information can be had for other Stark tube testers like the 9-66 (if I have garbled that in my failing memory).

Who were Stark and what happened to them?

--

Richard Loken VE6BSV : "...underneath those tuques we wear,
Athabasca, Alberta Canada : our heads are naked!"
** rlloken at telus.net ** : - Arthur Black

From arc5 at ix.netcom.com Fri Jun 16 10:47:32 2017
From: arc5 at ix.netcom.com (David Stinson)
Date: Fri, 16 Jun 2017 09:47:32 -0500
Subject: [BoatAnchors] Drake 4-Line Crystals
Message-ID: <75901D048CA949D9BDE1123CBE78A5AD@DaddyPC>

Most of you probably know this, but in case:
Those HC-6U crystals used for additional
bands in the Drake 4-Line gear-
most of them will triple and some, even 5x
multiply to provide the mixer freq you need.
For instance: If you need 12.6 MC to get
your R4 on 160 meters, a 4.2 MC crystal
will triple there and work. Active+ crystals

will do 5x.
One caution: Any freq error in the crystal
will be multiplied as well.

73 DE Dave AB5S

From jerry7proc at yahoo.com Fri Jun 16 15:53:46 2017
From: jerry7proc at yahoo.com (Jerry Proc)
Date: Fri, 16 Jun 2017 19:53:46 +0000 (UTC)
Subject: [BoatAnchors] Early Television History
References: <2070280380.14607990.1497642826908.ref@mail.yahoo.com>
Message-ID: <2070280380.14607990.1497642826908@mail.yahoo.com>

Hi Richard,

Thanks for the back grounder on your maintenance experiences.
To answer your questions::

Stark (known as Stark Electronic Instruments Ltd.) was a manufacturer of
electronic instruments and based in Ajax Ontario. They were best known for their
tube testers. They are not around to the best of my knowledge likely going out of
business once the vacuum tube era was over. The Radiomuseum.org site has some info
on the company and products at:
http://www.radiomuseum.org/dsp_hersteller_detail.cfm?company_id=8254

If you don't find what you are looking for, try this web page:
http://jproc.ca/rrp/emr_tequip.html

Several months ago, I was fortunate to have received a copy of the Royal Canadian
Navy's Catalogue of Materials which I have scanned and posted on-line. In it, you
can find an extract for all the test instruments used by the RCN around 1960 to
1963. Look in the "Meters" and "Tube testers" links to see if your instruments
are shown there.. I'm not sure sure why, but the listings only indicate a model
number but no manufacturer's name.

Let me know how you make out.

--

Regards,
Jerry Proc
E-mail: jerry7proc at yahoo.com

On Fri, 6/16/17, Richard Loken via BoatAnchors <boatanchors at theporch.com>
wrote:

Subject: Re: [BoatAnchors] Early Television History

To: "Jerry Proc via BoatAnchors" <boatanchors at theporch.com>
Received: Friday, June 16, 2017, 1:17 AM

Meanwhile, what do you know about
Stark?? I inherited a Japanese made VOM
badged Stark and made to look a lot
like a Simpson 260 but I cannot find any
information on it.?

I also have a
12-22 tube tester and again information is
lacking but, as you know, information
can be had for other Stark tube
testers like the 9-66 (if I have
garbled that in my failing memory.

Who were Stark and what happened to
them?

--

? Richard Loken VE6BSV?
? ? ? ??? ? :
"...underneath those tuques we wear,
? Athabasca, Alberta Canada?
? ? : our heads are naked!"
? ** rlloken at telus.net
**? ? ? ? :? ? - Arthur
Black

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://theporch.com/mailman/listinfo/boatanchors>

From wb3fau55 at neo.rr.com Sat Jun 17 12:01:23 2017
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Sat, 17 Jun 2017 12:01:23 -0400
Subject: [BoatAnchors] old TV
Message-ID: <20170617160123.BDSX2.223853.root@cdptpa-web11>

Anyone want to buy my Sentinel 9" TV? Russ.

From navy.radio at gmail.com Mon Jun 19 10:33:55 2017
From: navy.radio at gmail.com (Nick England)

Date: Mon, 19 Jun 2017 10:33:55 -0400

Subject: [BoatAnchors] Mystery 51J-4

Message-ID: <CAB55hNd028J1-LUsxFsFK5uQqkgivmq3DWGEvAr3EePgkPAeuQ@mail.gmail.com>

Here are a couple of photos of a mystery 51J-4 that looks modified for some lab or production use.

<http://www.navy-radio.com/rcvrs/51j4-mys.htm>

Extra ID tag "X53786"

Extra BNC connectors - "To Ext Gain Cont", "Null Meter", "Diff Meter"

Has one filter "X53619-2" with adjustment screw.

Thanks for any info or suggestions.

Nick England K4NYW

www.navy-radio.com

From navy.radio at gmail.com Mon Jun 19 12:48:48 2017

From: navy.radio at gmail.com (Nick England)

Date: Mon, 19 Jun 2017 12:48:48 -0400

Subject: [BoatAnchors] FS - RCA CR-91A receivers - in Edmonton, Alberta??

Message-ID: <CAB55hNeo_dhzhfq7xf6FcZM9C3cN8zoe27hnEE-8YtFCHV4qUdA@mail.gmail.com>

I know nothing (not even sure where the gear is) other than this fellow wants to dispose of a bunch of teletypes and I spotted a couple of CR-91A receivers in the pile. Also a RACAL ISB adaptor -

Photos at

<http://www.wacko.ca/Teletype/>

and an easier to browse version at

<https://goo.gl/photos/1a1A1qtYPDnRQGP388>

here is his contact email:

- [rwacko9 at gmail.com](mailto:rwacko9@gmail.com)

73 & Have Fun,

Nick England K4NYW

From arc5 at ix.netcom.com Mon Jun 19 13:40:02 2017

From: arc5 at ix.netcom.com (=?utf-8?B?YXJjNUBpeC5uZXRjb20uY29t?=?)

Date: Mon, 19 Jun 2017 17:40:02 GMT

Subject: [BoatAnchors] FS - RCA CR-91A receivers - in Edmonton, Alberta??

Message-ID: <000f4242.6e00c4723a295ef5@ix.netcom.com>

How about we start a Go-Find-Me crowd fund to rent an 18-wheeler and go save those lovelies??

Sent from my Ain't Smart Phone.

From 1oldlens1 at ix.netcom.com Mon Jun 19 14:33:51 2017
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Mon, 19 Jun 2017 11:33:51 -0700
Subject: [BoatAnchors] FS - RCA CR-91A receivers - in Edmonton, Alberta??
In-Reply-To: <000f4242.6e00c4723a295ef5@ix.netcom.com>
References: <000f4242.6e00c4723a295ef5@ix.netcom.com>
Message-ID: <ae3f3dd4-2a78-78ca-eddb-9433ea0bc0b0@ix.netcom.com>

Maybe a big box truck would do. Its painful to look at because one suspects all of it was in good condition when stored. I have experience with the RCA AR-88 type receivers, they can be cleaned and restored with a little work and are very fine performers even by modern standards. The CR-91 has the crystal phasing control brought out the front and has a METER, very rare. Too bad they are so heavy.

On 6/19/2017 10:40 AM, arc5 at ix.netcom.com via BoatAnchors wrote:

>
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>
>
>
> How about we start a Go-Find-Me crowd fund to rent an 18-wheeler and go
save those lovelies??

> Sent from my Ain't Smart Phone.

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>
>
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://theporch.com/mailman/listinfo/boatanchors>
>

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From w7qho at aol.com Mon Jun 19 21:15:55 2017
From: w7qho at aol.com (Dennis DuValll)
Date: Mon, 19 Jun 2017 18:15:55 -0700
Subject: [BoatAnchors] Harris RF-103 Linear Amplifier 160 M Modification.
Message-ID: <747D0797-B5C8-463C-B453-F6FCD313635E@aol.com>

I have been able to readily obtain copies of the manual for this unit from multiple different sources. All seem to have been copied from a single source document that had been marked-up to show the modifications required to allow operation on the 160 meter band. (The RF-103 in it's original form only operates down to 2 MHz.) Unfortunately the placement of additional components in one area is ambiguous in all the copies of the manual I have been able to obtain.

Has anyone successfully implemented these modifications? If so please contact me.

Dennis DuVall W7QHO
Glendale, CA

From rlloken at telus.net Mon Jun 19 23:19:26 2017
From: rlloken at telus.net (Richard Loken)
Date: Mon, 19 Jun 2017 21:19:26 -0600 (MDT)
Subject: [BoatAnchors] FS - RCA CR-91A receivers - in Edmonton, Alberta??
In-Reply-To: N1UidVvlpoQc4N1Ujds7CL
References: <000f4242.6e00c4723a295ef5@ix.netcom.com> N1UidVvlpoQc4N1Ujds7CL
Message-ID: <alpine.BSF.2.20.1706192118160.69429@discord.bogons>

So who is selling CR-91A receivers in Edmontonm, Alberta? Being as I am 120km from Edmonton, this may be of some interest to me.

--

Richard Loken VE6BSV : "...underneath those tuques we wear,
Athabasca, Alberta Canada : our heads are naked!"
** rlloken at telus.net ** : - Arthur Black

From ddillman at igc.org Fri Jun 23 18:23:59 2017
From: ddillman at igc.org (Richard Dillman)

Date: Fri, 23 Jun 2017 15:23:59 -0700 (GMT-07:00)
Subject: [BoatAnchors] Night of Nights XVIII Coming Up!
Message-ID: <19891145.14884.1498256639870@elwamui-little.atl.sa.earthlink.net>

Night of Nights XVIII will take place on 12 July 2017. Coast stations KPH, KFS, NMC, NMW and NMQ will be on the air. Amateur station K6KPH will be on the air for signal reports and general contacts.

Full details will be in the next MRHS Newsletter. If you are not already a subscriber all it takes is one click here:

<http://tinyurl.com/gwgjwvy>

If you're new to Night of Nights you can read the origin story in our last Newsletter at:

<http://conta.cc/2pqbQb5>

We hope you'll join us on the air or in person at historic KPH.

VY 73,

RD

=====
Richard Dillman
Maritime Radio Historical Society
<http://www.radiomarine.org>
=====

From arc5 at ix.netcom.com Sat Jun 24 00:11:24 2017
From: arc5 at ix.netcom.com (David Stinson)
Date: Fri, 23 Jun 2017 23:11:24 -0500
Subject: [BoatAnchors] Wanted: Drake R4 Parts
Message-ID: <2A5556FC31E54DA0B8B1FBA7979A20F0@DaddyPC>

Wanted: For the Drake R4 (4, 4A, 4B) receiver:

Top cover.
The clear, sliding freq window
with the red frequency index.

Can purchase, trade or ?

TNX ES 73 DE Dave AB5S

From charlesmorris800 at centurytel.net Sat Jun 24 13:09:20 2017
From: charlesmorris800 at centurytel.net (Charles Morris)
Date: Sat, 24 Jun 2017 20:09:20 +0300
Subject: [BoatAnchors] Looking for Hallicrafters S-40A knobs
Message-ID: <2D230CEB02244140B4231B7C3259A300@CharlesDellPC>

I still have my late father's Halli S-40A that I used to SWL with in the 70's (got my ham ticket in '76 but immediately discovered it was not a good ham receiver).

A couple years ago I recapped and aligned it, and it does work but needs cosmetics. It never did have a dial glass, speaker grill or the factory knobs. So I'm looking for those parts.

Can anyone help?

thanks

Charles

WB3JOK/0

--

I am using the free version of SPAMfighter.

SPAMfighter has removed 4788 of my spam emails to date.

Get the free SPAMfighter here: <http://www.spamfighter.com/len>

Do you have a slow PC? Try a Free scan

<http://www.spamfighter.com/SLOW-PCfighter?cid=sigen>

From gsantacana at gmail.com Wed Jun 28 22:13:21 2017
From: gsantacana at gmail.com (Guido Santacana)
Date: Wed, 28 Jun 2017 22:13:21 -0400
Subject: [BoatAnchors] HQ180 clock
Message-ID: <CA01yix22oC820Q+fjFVJpwvyj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>

My HQ180A Telechron stopped working recently and I left it alone until last weekend. The problem seemed to be the rotor. I took it out and gave it the 100 watt bulb heat and oil through the gear shaft treatment. It works quite well. I used synthetic motor oil (0W20). After 5 heat-oil-cool cycles the rotor was ready to go back into the clock. It worked right away and has been doing so for a few days now. This is the second time I use this procedure. The first time was on my HQ100 clock and it has been working for the last 4 years without any noise.

I don't know why they stopped building Telechron electric clocks. The rotors last forever and the clocks are quite accurate and here is my own answer... they last forever outlasting their junk battery quartz clocks by a lot.

Nothing looks so nice like an HQ with its working Telechron.

Best 73s

Guido

Guido Santacana KP4FAR

From gumbear at pacbell.net Wed Jun 28 22:26:05 2017
From: gumbear at pacbell.net (Arden Allen)
Date: Wed, 28 Jun 2017 19:26:05 -0700
Subject: [BoatAnchors] HQ180 clock
In-Reply-To: <CA01yix22oC820Q+fjFVJpwvyj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>
References: <CA01yix22oC820Q+fjFVJpwvyj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>
Message-ID: <805AE0DDD64648FBB8EF9A1D6A84F4B7@Lenovo>

> ... they last forever outlasting their junk battery quartz clocks by
a lot.

Good on ya, Guido. That's why I have 1950's General Electric wall clocks in
my work shops and office. Plus two bedside clocks I bought in the 60's.
They've outlasted a lot of Eveready bunnies and little plastic gear wheels.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From rbsingl at ilstu.edu Wed Jun 28 22:48:46 2017
From: rbsingl at ilstu.edu (Singley, Rodger)
Date: Thu, 29 Jun 2017 02:48:46 +0000
Subject: [BoatAnchors] HQ180 clock
In-Reply-To: <CA01yix22oC820Q+fjFVJpwvyj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>
References: <CA01yix22oC820Q+fjFVJpwvyj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>
Message-ID:
<MWHPR03MB275262E72769F6EFC2861BA1B8D20@MWHPR03MB2752.namprd03.prod.outlook.com>

Guido,

I first read about this heat/oil procedure for quieting electric clock motors in a
"Mac's Service Shop" column in Radio and Television News and I have used it quite

a few times with success.

John T. Frye did an excellent job of making learning interesting and we are fortunate he was such a prolific author. I expect his Carl and Jerry series that appeared in Popular Electronics was responsible for causing many youngsters to enter electronic and other scientific careers.

Rodger WQ9E

-----Original Message-----

From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of Guido Santacana via BoatAnchors
Sent: Wednesday, June 28, 2017 9:13 PM
To: boatanchors at theporch.com
Subject: [BoatAnchors] HQ180 clock

My HQ180A Telechron stopped working recently and I left it alone until last weekend. The problem seemed to be the rotor. I took it out and gave it the 100 watt bulb heat and oil through the gear shaft treatment. It works quite well. I used synthetic motor oil (0W20). After 5 heat-oil-cool cycles the rotor was ready to go back into the clock.
Guido

From dean.gagnon at juno.com Thu Jun 29 10:22:51 2017
From: dean.gagnon at juno.com (dean.gagnon at juno.com)
Date: Thu, 29 Jun 2017 14:22:51 GMT
Subject: [BoatAnchors] SP600 JX17 Case
Message-ID: <20170629.102251.565.0@webmail11.vgs.unttd.com>

Now that my SP600 is up and running it would be nice to get it in a case and find a permanent spot in the shack.

Does anyone have a case that would accommodate an SP600?

Please get in touch with me if you have something that would work.

Thanks in advance,

Dean
KK1K

Affordable Wireless Plans
Set up is easy. Get online in minutes.
Starting at only \$14.95 per month!
www.netzero.net?refcd=nzmem0216

From gsantacana at gmail.com Thu Jun 29 14:33:53 2017
From: gsantacana at gmail.com (Guido Santacana)
Date: Thu, 29 Jun 2017 14:33:53 -0400
Subject: [BoatAnchors] HQ180 clock
In-Reply-To: <20170629131730.LCKS3.22110.root@cdptpa-web09>
References: <CA01yix22oC820Q+fjFVJpwyj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>
<20170629131730.LCKS3.22110.root@cdptpa-web09>
Message-ID: <CA01yix2XtsCLWwcRcQB51UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>

Very true Russ. I can't imagine how much it would cost to have those rotors made today even with all the technology available. Like Arden I have several electric clocks at home. They just keep on running and outlasting all the quartz clocks. I also find that all of them are very accurate keeping time.

Guido

On Thu, Jun 29, 2017 at 9:17 AM, <wb3fau55 at neo.rr.com> wrote:

> Guido, the clocks are too expensive to make. Bad reason, for a buying
> public, but reality. Russ.
> ---- Guido Santacana via BoatAnchors <boatanchors at theporch.com> wrote:
> > My HQ180A Telechron stopped working recently and I left it alone until
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> > weekend. The problem seemed to be the rotor. I took it out and gave it
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> > 100 watt bulb heat and oil through the gear shaft treatment. It works
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> > well. I used synthetic motor oil (0W20). After 5 heat-oil-cool cycles the
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> >
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> by
> > a lot.
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> > Nothing looks so nice like an HQ with its working Telechron.
> >
> > Best 73s
> >
> > Guido
> >

> > Guido Santacana KP4FAR
> > -----
> > BoatAnchors mailing list
> > BoatAnchors at theporch.com
> > <https://theporch.com/mailman/listinfo/boatanchors>
>
>

From 1oldlens1 at ix.netcom.com Thu Jun 29 15:16:08 2017
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Thu, 29 Jun 2017 12:16:08 -0700
Subject: [BoatAnchors] HQ180 clock
In-Reply-To: <CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>
References: <CA01yix22oC820Q+fjFVJpwvyj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>
<20170629131730.LCKS3.22110.root@cdptpa-web09>
<CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>
Message-ID: <edf6f27d-f679-e77d-4db0-380e3c151c2a@ix.netcom.com>

The accuracy depends on the accuracy of the power line frequency. I am not sure how that is regulated now. In the past power companies like our local Los Angeles Department of Water and Power, adjusted frequency so that the total number of cycles in a 24 hour period was exactly correct. The instantaneous frequency depends on the speed of the generators so varied a little with load. I suspect now its controlled to match an atomic clock. The crystal controlled clocks are all over the place. I have several including my watch. Some are very accurate and keep time for months, others need to be reset every couple of weeks. Still better than most spring driven clocks. I don't have any power line driven electric clocks any more but see them all the time in the thrift shops.

On 6/29/2017 11:33 AM, Guido Santacana via BoatAnchors wrote:

> Very true Russ. I can't imagine how much it would cost to have those rotors
> made today even with all the technology available. Like Arden I have
> several electric clocks at home. They just keep on running and outlasting
> all the quartz clocks. I also find that all of them are very accurate
> keeping time.

>

> Guido

>

> On Thu, Jun 29, 2017 at 9:17 AM, <wb3fau55 at neo.rr.com> wrote:

>

>> Guido, the clocks are too expensive to make. Bad reason, for a buying
>> public, but reality. Russ.

--

Richard Knoppow

1oldlens1 at ix.netcom.com
WB6KBL

From gsantacana at gmail.com Thu Jun 29 15:58:47 2017
From: gsantacana at gmail.com (Guido Santacana)
Date: Thu, 29 Jun 2017 15:58:47 -0400
Subject: [BoatAnchors] HQ180 clock
In-Reply-To: <edf6f27d-f679-e77d-4db0-380e3c151c2a@ix.netcom.com>
References: <CA01yix22oC820Q+fjFVJpwvyj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>
<20170629131730.LCKS3.22110.root@cdptpa-web09>
<CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>
<edf6f27d-f679-e77d-4db0-380e3c151c2a@ix.netcom.com>
Message-ID: <CA01yix0szGcqf+rdMtUBryNRUZ49PFUC3R=xcke6s5gSyyt_rw@mail.gmail.com>

This is an interesting observation. My clocks keep very good time. I suppose that the Electric Power Authority here uses a time standard from the atomic clocks. I had a good friend and ham that worked there in communications. He used to tell me how, even back in the 60s and 70s, they kept a communications receiver tuned to a time standard signal, usually WWV. They had an HR060 that was later replaced by a Drake SPR-4. After that, I don't know what happened. Maybe they adjusted the generators at that time using the time signal but this is just my speculation.

Guido

On Thu, Jun 29, 2017 at 3:16 PM, Richard Knoppow via BoatAnchors <boatanchors at theporch.com> wrote:

> The accuracy depends on the accuracy of the power line frequency. I am
> not sure how that is regulated now. In the past power companies like our
> local Los Angeles Department of Water and Power, adjusted frequency so that
> the total number of cycles in a 24 hour period was exactly correct. The
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>> made today even with all the technology available. Like Arden I have
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>> all the quartz clocks. I also find that all of them are very accurate

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> --
> Richard Knoppow
> 1oldlens1 at ix.netcom.com
> WB6KBL
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://theporch.com/mailman/listinfo/boatanchors>
>

From ark at ar88.net Thu Jun 29 16:11:00 2017
From: ark at ar88.net (Al Klase)
Date: Thu, 29 Jun 2017 16:11:00 -0400
Subject: [BoatAnchors] HQ180 clock
In-Reply-To: <CA01yix0szGcqf+rdMtUBryNRUZ49PFUC3R=xcke6s5gSyyt_rw@mail.gmail.com>
References: <CA01yix22oC820Q+fjFVJpwwyj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>
<20170629131730.LCKS3.22110.root@cdtpa-web09>
<CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>
<edf6f27d-f679-e77d-4db0-380e3c151c2a@ix.netcom.com>
<CA01yix0szGcqf+rdMtUBryNRUZ49PFUC3R=xcke6s5gSyyt_rw@mail.gmail.com>
Message-ID: <732f70d6-5a49-c24a-6595-c59e0921a9e2@ar88.net>

Folks,

My understanding is, that in the old days, they'd keep a master clock at the control point, and run a synchronous clock from the power grid. An operator would throttle things to keep the grid clock close to the master clock. I do remember seeing a pretty impressive pendulum clock in the control room at the Safe Harbor power plant in Pennsylvania, that dated from about 1935.

There is an apocryphal story of an operator falling asleep on the night shift, and then running the whole system at about 65 Hz to catch up.

Al

On 6/29/2017 3:58 PM, Guido Santacana via BoatAnchors wrote:

> This is an interesting observation. My clocks keep very good time. I
> suppose that the Electric Power Authority here uses a time standard from
> the atomic clocks. I had a good friend and ham that worked there in
> communications. He used to tell me how, even back in the 60s and 70s, they
> kept a communications receiver tuned to a time standard signal, usually
> WWV. They had an HR060 that was later replaced by a Drake SPR-4. After
> that, I don't know what happened. Maybe they adjusted the generators at
> that time using the time signal but this is just my speculation.

>

> Guido

>

>

--

Al Klase ? N3FRQ

Jersey City, NJ

<http://www.skywaves.ar88.net/>

From gumbear at pacbell.net Thu Jun 29 16:06:27 2017

From: gumbear at pacbell.net (Arden Allen)

Date: Thu, 29 Jun 2017 13:06:27 -0700

Subject: [BoatAnchors] HQ180 clock

In-Reply-To: <CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>

References: <CA01yix22oC820Q+fjFVJpwwvyj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>
<20170629131730.LCKS3.22110.root@cdptpa-web09>

<CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>

Message-ID: <034D8B4BDE814B3E90E7B265166194D3@Lenovo>

>I have

several electric clocks at home. They just keep on running and outlasting
all the quartz clocks. I also find that all of them are very accurate
keeping time.

They keep time accurately because they are run by synchronous motors that
are locked to the line frequency that is kept in agreement with Naval
Observatory time. Old technology that works best.

Arden Allen

KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.

?Immanuel Kant

From gsantacana at gmail.com Thu Jun 29 19:12:47 2017
From: gsantacana at gmail.com (Guido Santacana)
Date: Thu, 29 Jun 2017 19:12:47 -0400
Subject: [BoatAnchors] HQ180 clock
In-Reply-To: <732f70d6-5a49-c24a-6595-c59e0921a9e2@ar88.net>
References: <CA01yix22oC820Q+fjFVJpwyvj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>
<20170629131730.LCKS3.22110.root@cdptpa-web09>
<CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>
<edf6f27d-f679-e77d-4db0-380e3c151c2a@ix.netcom.com>
<CA01yix0szGcqf+rdMtUBryNRUZ49PFUC3R=xcke6s5gSyyt_rw@mail.gmail.com>
<732f70d6-5a49-c24a-6595-c59e0921a9e2@ar88.net>
Message-ID: <CA01yix04hFyc_5ScGyv7jrAjF6BrstY+K5=4iPky3c-vo2bpHA@mail.gmail.com>

Probably that was the job of those receivers at the Electric Power Authority that my friend mentioned as always tuned to WWV. The master clock was synchronized to WWV. I learned that at least the SPR 4 ended up as surplus and in someone's shack. Unfortunately I was not able to track it. The HRO whereabouts were never known. It was probably trashed.

>From getting a Telechron rotor to work now I have come to better understand why my electric clocks are so accurate. It also brought some nostalgia of days in my friend's Renato KP4U shack just talking about tube gear. He used to adopt everything he found or was given to him. Then he would modify it, use it, get tired of it, bring it home to me and... I would retrofit everything to original specs. He would laugh at me for being such a purist. One of my electric clocks was his. It is a Mastercrafters 24hr world clock. KP4U is now SK.

Guido

On Thu, Jun 29, 2017 at 4:11 PM, Al Klase via BoatAnchors <boatanchors at theporch.com> wrote:

> Folks,
>
> My understanding is, that in the old days, they'd keep a master clock at
> the control point, and run a synchronous clock from the power grid. An
> operator would throttle things to keep the grid clock close to the master
> clock. I do remember seeing a pretty impressive pendulum clock in the
> control room at the Safe Harbor power plant in Pennsylvania, that dated
> from about 1935.
>
> There is an apocryphal story of an operator falling asleep on the night
> shift, and then running the whole system at about 65 Hz to catch up.
>

> Al
>
> On 6/29/2017 3:58 PM, Guido Santacana via BoatAnchors wrote:
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>> the atomic clocks. I had a good friend and ham that worked there in
>> communications. He used to tell me how, even back in the 60s and 70s, they
>> kept a communications receiver tuned to a time standard signal, usually
>> WWV. They had an HR060 that was later replaced by a Drake SPR-4. After
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>> that time using the time signal but this is just my speculation.
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> Al Klase ? N3FRQ
> Jersey City, NJ
> <http://www.skywaves.ar88.net/>
>
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://theporch.com/mailman/listinfo/boatanchors>
>

From smithab11 at comcast.net Thu Jun 29 20:54:12 2017
From: smithab11 at comcast.net (B. Smith)
Date: Thu, 29 Jun 2017 20:54:12 -0400
Subject: [BoatAnchors] HQ180 clock
In-Reply-To: <732f70d6-5a49-c24a-6595-c59e0921a9e2@ar88.net>
References: <CA01yix22oC820Q+fjFVJpwyj7S=c1ECjf1VLM55sw9QvSq4TA@mail.gmail.com>
<20170629131730.LCKS3.22110.root@cdptpa-web09>
<CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>
<edf6f27d-f679-e77d-4db0-380e3c151c2a@ix.netcom.com>
<CA01yix0szGcqf+rdMtUBryNRUZ49PFUC3R=xcke6s5gSyyt_rw@mail.gmail.com>
<732f70d6-5a49-c24a-6595-c59e0921a9e2@ar88.net>
Message-ID: <ed30e677-c217-666e-cd67-1756e5ad4ff9@comcast.net>

When we had the older AC gen sets during field day we used a clock with
a second hand to keep track of the 60 cycles.

breck k4che

On 6/29/2017 4:11 PM, Al Klase via BoatAnchors wrote:

> Folks,

>

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>> that time using the time signal but this is just my speculation.

>>

>> Guido

>>

>>

>

From gsantacana at gmail.com Fri Jun 30 12:23:21 2017

From: gsantacana at gmail.com (Guido Santacana)

Date: Fri, 30 Jun 2017 12:23:21 -0400

Subject: [BoatAnchors] HQ180 clock

In-Reply-To: <20170630145517.QJM0B.63065.root@cdptpa-web01>

References: <CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>
<20170630145517.QJM0B.63065.root@cdptpa-web01>

Message-ID: <CA01yix2WzYDiJniViMNkyP8LT+fJG0tM0Lqf6rnpDcj1N1hN9g@mail.gmail.com>

Russ

I suppose they still keep the 60Hz synchronized with the atomic clock in Colorado. Now they are probably using computers and everything is automated.

The SPR-4 has the wonderful Wadley Loop circuit. I almost landed one here sometime ago and the information I had indicated that this was the one used at the Electric Power Authority. Unfortunately someone beat me to it. I have three Wadley Loop receivers, an FRG-7, Realistic DX302 and the Drake SSR-1. The best of the lot is the FRG-7. No Racal RA-17 or SPR-4 yet. They are part of my bucket list.

Best 73s

Guido

On Fri, Jun 30, 2017 at 10:55 AM, <wb3fau55 at neo.rr.com> wrote:

> Guido, one reason your clocks are accurate is because they depend on the
> 60HZ line freq. The power grid takes pride in maintaining that. There was
> a time when they used to do power line freq correction.
> I do not if they do it anymore, or over what period of time. Russ.
> ---- Guido Santacana <gsantacana at gmail.com> wrote:
> > Very true Russ. I can't imagine how much it would cost to have those
> rotors
> > made today even with all the technology available. Like Arden I have
> > several electric clocks at home. They just keep on running and outlasting
> > all the quartz clocks. I also find that all of them are very accurate
> > keeping time.
> >
> > Guido
> >
> > On Thu, Jun 29, 2017 at 9:17 AM, <wb3fau55 at neo.rr.com> wrote:
> >
> > > Guido, the clocks are too expensive to make. Bad reason, for a
> > buying
> > > public, but reality. Russ.
> > > ---- Guido Santacana via BoatAnchors <boatanchors at theporch.com> wrote:
> > > > My HQ180A Telechron stopped working recently and I left it alone
> > > until
> > > last
> > > > weekend. The problem seemed to be the rotor. I took it out and gave
> > > it
> > > the
> > > > 100 watt bulb heat and oil through the gear shaft treatment. It works
> > > quite
> > > > well. I used synthetic motor oil (0W20). After 5 heat-oil-cool
> > > cycles the
> > > > rotor was ready to go back into the clock. It worked right away and
> > > has
> > > > been doing so for a few days now. This is the second time I use this
> > > > procedure. The first time was on my HQ100 clock and it has been

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> working
> > > for
> > > > the last 4 years without any noise.
> > > >
> > > > I don't know why they stopped building Telechron electric clocks. The
> > > > rotors last forever and the clocks are quite accurate and here is my
> own
> > > > answer... they last forever outlasting their junk battery quartz
> clocks
> > > by
> > > > a lot.
> > > >
> > > > Nothing looks so nice like an HQ with its working Telechron.
> > > >
> > > > Best 73s
> > > >
> > > > Guido
> > > >
> > > > Guido Santacana KP4FAR
> > > > -----
> > > > BoatAnchors mailing list
> > > > BoatAnchors at theporch.com
> > > > https://theporch.com/mailman/listinfo/boatanchors
> > >
> > >
>
>

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From nbroline at austin.rr.com Fri Jun 30 16:48:42 2017
 From: nbroline at austin.rr.com (Nick Broline)
 Date: Fri, 30 Jun 2017 15:48:42 -0500
 Subject: [BoatAnchors] 60~ clock
 Message-ID: <5074964456DC4E218D83299EBA599DF8@newdualath>

I seem to recall the power folks do not intend to be rock solid on the frequency, but allow it to droop or rise as loads are added and dropped. I believe their intention is to give customers the total number of cycles required to keep clocks in perfect time from day-to-day, but not instantaneous. This became evident to me when I was listening for SAQ at 17.2 kc and heard the 60~ harmonics emitted by the power grid in Austin, TX. One could hear the line frequency respond to load shifts because the 60 cycle frequency was multiplied by ~288 and freq shifts are easily heard in a narrow CW bandwidth receiver.

73

Nick Broline W5FUA.

From dave at horsfall.org Fri Jun 30 19:27:07 2017
From: dave at horsfall.org (Dave Horsfall)
Date: Sat, 1 Jul 2017 09:27:07 +1000 (EST)
Subject: [BoatAnchors] HQ180 clock
In-Reply-To: <CA01yix2WzYDiJniViMNkyP8LT+fJG0tM0Lqf6rnpDcj1N1hN9g@mail.gmail.com>
References: <CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>
<20170630145517.QJM0B.63065.root@cdptpa-web01>
<CA01yix2WzYDiJniViMNkyP8LT+fJG0tM0Lqf6rnpDcj1N1hN9g@mail.gmail.com>
Message-ID: <alpine.BSF.2.20.1707010923480.71363@aneurin.horsfall.org>

On Fri, 30 Jun 2017, Guido Santacana via BoatAnchors wrote:

> The SPR-4 has the wonderful Wadley Loop circuit. [...]

Curious to know exactly how the Wadley Loop worked (I had a Frog-7 once),
I searched for it. Top result?

Wadley loop on eBay - Great deals on Wadley loop.
Great deals on Wadley loop. Buy It New, Buy It Used, Buy It Now

I didn't know you could buy them :-)

--

Dave Horsfall DTM (VK2KFU) "Those who don't understand security will suffer."

From rbsingl at ilstu.edu Fri Jun 30 19:36:43 2017
From: rbsingl at ilstu.edu (Singley, Rodger)
Date: Fri, 30 Jun 2017 23:36:43 +0000
Subject: [BoatAnchors] HQ180 clock
In-Reply-To: <CA01yix2WzYDiJniViMNkyP8LT+fJG0tM0Lqf6rnpDcj1N1hN9g@mail.gmail.com>
References: <CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>
<20170630145517.QJM0B.63065.root@cdptpa-web01>
<CA01yix2WzYDiJniViMNkyP8LT+fJG0tM0Lqf6rnpDcj1N1hN9g@mail.gmail.com>
Message-ID:
<MWHPR03MB27529263317981713A145BA0B8D30@MWHPR03MB2752.namprd03.prod.outlook.com>

Actually the Drake SPR-4 is a standard crystal pre-mix system like the rest of the 4 line except of course it is all solid state. It is like a simplified R-4B in that it lacks the passband tuning feature. It is a neat receiver and with the FS-4 synthesizer it does provide continuous coverage to 30 mhz.

The SPR-4 does use a slightly different offset frequency for the HF0, the crystal oscillates 11.090 Mhz. above the low end of the frequency range in the SPR-4 instead of 11.100 Mhz. above like the other 4 line gear. This is due to the

slightly different PTO range (Drake uses a "pre-mix" system where the PTO and HFO are mixed together before injection into the first mixer).

Like Guido I am also a fan of the Wadley loop receivers!

Rodger WQ9E

" The SPR-4 has the wonderful Wadley Loop circuit. I almost landed one here sometime ago and the information I had indicated that this was the one used at the Electric Power Authority. Unfortunately someone beat me to it. I have three Wadley Loop receivers, an FRG-7, Realistic DX302 and the Drake SSR-1. The best of the lot is the FRG-7. No Racal RA-17 or SPR-4 yet. They are part of my bucket list.

Best 73s

Guido"

From ark at ar88.net Fri Jun 30 20:29:44 2017

From: ark at ar88.net (Al Klase)

Date: Fri, 30 Jun 2017 20:29:44 -0400

Subject: [BoatAnchors] Wadley Loop; was HQ180 clocK

In-Reply-To:

<MWHPR03MB27529263317981713A145BA0B8D30@MWHPR03MB2752.namprd03.prod.outlook.com>

References: <CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>

<20170630145517.QJM0B.63065.root@cdptpa-web01>

<CA01yix2WzYDiJniViMNkyP8LT+fJG0tM0Lqf6rnpDcj1N1hN9g@mail.gmail.com>

<MWHPR03MB27529263317981713A145BA0B8D30@MWHPR03MB2752.namprd03.prod.outlook.com>

Message-ID: <7b0d5b7f-4b2b-04b9-c093-64fd758ed56f@ar88.net>

Guido and Roger,

Yeah, I didn't think the SPR-4 was a Wadley loop. That's Racal RA-17, and some of it's descendant like the RA-115, RA-6217, and FRG-7.

Read my RA-17 page, and see if it makes any sense. It was a really clever design that was a lot cheaper than the Collins solution in the 51J and R-390..

<http://www.skywaves.ar88.net/commrx/RACAL/RA17.htm>

Al

On 6/30/2017 7:36 PM, Singley, Rodger via BoatAnchors wrote:

> Actually the Drake SPR-4 is a standard crystal pre-mix system like the rest of the 4 line except of course it is all solid state. It is like a simplified R-4B in that it lacks the passband tuning feature. It is a neat receiver and with the

FS-4 synthesizer it does provide continuous coverage to 30 mhz.

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>

> Guido"

>

>

>

> -----
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://theporch.com/mailman/listinfo/boatanchors>

--

Al Klase ? N3FRQ

Jersey City, NJ

<http://www.skywaves.ar88.net/>

From rbsingl at ilstu.edu Fri Jun 30 21:03:45 2017

From: rbsingl at ilstu.edu (Singley, Rodger)

Date: Sat, 1 Jul 2017 01:03:45 +0000

Subject: [BoatAnchors] Wadley Loop; was HQ180 clock

In-Reply-To: <7b0d5b7f-4b2b-04b9-c093-64fd758ed56f@ar88.net>

References: <CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>
<20170630145517.QJM0B.63065.root@cdptpa-web01>

<CA01yix2WzYDiJniViMNkyP8LT+fJG0tM0Lqf6rnpDcj1N1hN9g@mail.gmail.com>

<MWHPR03MB27529263317981713A145BA0B8D30@MWHPR03MB2752.namprd03.prod.outlook.com>

<7b0d5b7f-4b2b-04b9-c093-64fd758ed56f@ar88.net>

Message-ID:

<MWHPR03MB2752A0E98665B61122374931B8D000@MWHPR03MB2752.namprd03.prod.outlook.com>

The oddest of my Wadley loop receivers is a Kyoritsu RA-003B which was designed for commercial shipboard use. Our list member Katsuhiko was instrumental in helping me to restore this complex receiver because without his translation of the Japanese technical manual I would never have figured out the problems with it.

It is a triple conversion Wadley loop design covering 90 khz. to 30 Mhz. and has 3 crystal and one ceramic filter providing selectivity from 500hz. To 6 Khz. The frequency readout is via LED and the 1 Mhz. range VFO has a switchable AFC system to reduce drift to an insignificant level by locking the VFO to the nearest 10 hz increment.

When I got the receiver it was completely deaf and the problem was a failed TI decoder IC that drives the servo controlled front end tuning system. The front end is tuned via signals from the range switch and a position indicator for the VFO while the 2 to 3 Mhz. variable frequency IF has a separate servo tuning system tied to the VFO. Once the IC was replaced and an alignment was done it works very well. I don't think many survived their marine decommissioning but I have a picture of mine along with some other receivers in a thread over in the Antique Radio Forum: <http://antiqueradios.com/forums/viewtopic.php?f=5&t=196697>

In that thread you will also find another synthesized receiver that was misidentified as a Wadley loop design. I will leave that as a puzzle for the list members ?

The Wadley loop is a well thought out alternative to a lot of crystals for the days before synthesizers were practical for smaller and lower cost receivers. I often carry my compact but heavy (for a portable) Barlow XCR-30 outside to use on the gazebo. It does an excellent job with SSB/CW as long as there are not stations too close to the one you wish to copy.

Rodger WQ9E

-----Original Message-----

From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of Al Klase via BoatAnchors

Sent: Friday, June 30, 2017 7:30 PM

To: boatanchors at theporch.com

Subject: [BoatAnchors] Wadley Loop; was HQ180 clock

Guido and Roger,

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<http://www.skywaves.ar88.net/commrx/RACAL/RA17.htm>

A1

From ajamas.rn at gmail.com Fri Jun 30 21:51:20 2017
From: ajamas.rn at gmail.com (Katz Ajamas)
Date: Sat, 1 Jul 2017 01:51:20 +0000
Subject: [BoatAnchors] Wadley Loop; was HQ180 clock
In-Reply-To: <7b0d5b7f-4b2b-04b9-c093-64fd758ed56f@ar88.net>
References: <CA01yix2XtsCLWwcRcQBs1UtAiYo46awy3XdKGppgWV6b_MXx2w@mail.gmail.com>
<20170630145517.QJM0B.63065.root@cdptpa-web01>
<CA01yix2WzYDiJniViMNkyP8LT+fJG0tM0Lqf6rnpDcj1N1hN9g@mail.gmail.com>
<MWHPR03MB27529263317981713A145BA0B8D30@MWHPR03MB2752.namprd03.prod.outlook.com>
<7b0d5b7f-4b2b-04b9-c093-64fd758ed56f@ar88.net>
Message-ID: <CA+kZa5p8x_qbdMUrJBbWFfg-Qfizj7QxYEW8CWfF0fXiUsvvGQ@mail.gmail.com>

Aloha Gentlemen!

IIRC it is the transistorized Drake SSR1 that employs Wadley's loop.

73, -bob ah7i/w4

On Sat, Jul 1, 2017 at 12:29 AM, A1 Klase via BoatAnchors <boatanchors at theporch.com> wrote:

> Guido and Roger,
>
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>
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>
> A1
>
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>
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>>

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>>

>> Guido"

>>

>>

>> -----

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>>

>

> --

> Al Klase ? N3FRQ

> Jersey City, NJ

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>

> -----

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>

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-do not look into LASER with remaining eye!